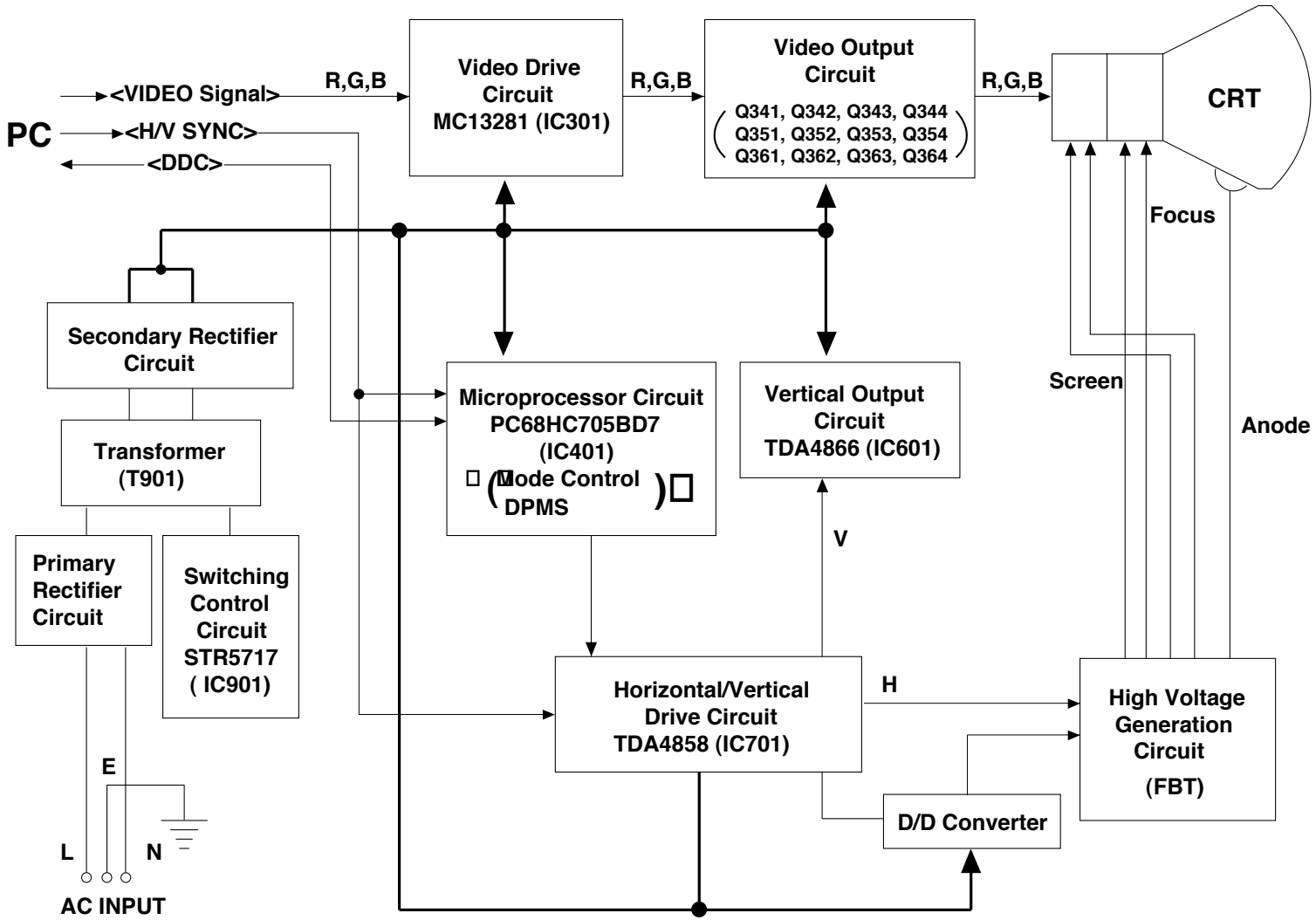
<VIDEO Signal>
R,G,B
Video Drive Circuit MC13281 (IC301)
R,G,B
Video Output Circuit
Q341, Q342, Q343, Q344
Q351, Q352, Q353, Q354
Q361, Q362, Q363, Q364
R,G,B
CRT
PC
<H/V SYNC>
<DDC>
Focus
Screen
Anode
Secondary Rectifier Circuit
Transformer (T901)
Microprocessor Circuit PC68HC705BD7 (IC401)
( Mode Control DPMS )
Vertical Output Circuit TDA4866 (IC601)
V
Primary Rectifier Circuit
Switching Control Circuit STR5717 ( IC901)
Horizontal/Vertical Drive Circuit TDA4858 (IC701)
H
High Voltage Generation Circuit
(FBT)
D/D Converter
E
L
N
AC INPUT

# DESCRIPTION OF BLOCK DIAGRAM

**1. Primary Rectifier Circuit**

This circuit transform AC line voltage to DC voltage as the supplied source for secondary circuit.
It is operated by C908 (electrolytic capacitor) and D901 (bridge diode).

**2. Switching Control Circuit**

This circuit operate to be kept output of the secondary rectified circuit in constant level any conditions; no load, full load, and line voltage variation, ... etc.
The main function is operated by the IC901 (STR5717) syncronizing to horizontal frequency via a connector that tie around the core of the T701 (FBT).

**3. Secondary Rectifier Circuit**

This circuit rectifying the pulse waveform of the transformer generated by switching control circuit.
It is consists of capacitors and diodes.
The output voltages are 77V, 50V, 40V, 13V, 6.3V, and 5V that are nacessary to the secondary circuit.

**4. Video Pre-Amp Circuit**

This circuit pre-amplify the video signal (Red, Green and Blue) to make sufficient signal for the video output circuit.
The function is operated by the IC301 (MC13281).

**5. Video Output Circuit**

This circuit amplifies the video signal which comes from the video pre-amp circuit and amplified video signal is applied to the CRT cathode.

**6. Microprocessor Circuit**

This circuit generate control signal that need to operating of horizontal and vertical drive circuit, DDC1/2B (Plug & Play), and DPM (energy saviing) funtion. DDC1/2B (Plug & Play) function is operated by combination of H/V Sync and SDA/SCL signal.

**7. Horizontal and Vertical Drive Circuit**

This circuit take function, that are H/V-position, side-pincushion, and trapezoid, with the output of microprocessor circuit.
The generated vertical signal is applied to the vertical output circuit. The generated horizontal signal is applied to the horizontal output and high voltage generation circuit.
These are controlled by the IC701 (TDA4858) circuit.

**8. Vertical Output Circuit**

This circuit take the vertical ramp wave from the IC701 (TDA4858) and perform vertical deflection by supplying saw-tooth current from the IC601 (TDA4866) to the vertical deflection yoke.

**9. High Voltage Generation Circuit**

This circuit used for generating pulse the primary coil of T701 (FBT).
A boosted voltage—about 25kV—appears at the secondary of T701 (FBT) and it is supplied to the anode of the CDT (Cathode Display Tube).

**10. Blanking and Brightness Control Circuit.**

Blanking circuit eliminate retrace line by supplying negative pulse to the G1 of the CDT (Cathode Display Tube).
Brightness circuit is used to control screen brightness by changing the DC level of the G1.

**11. D/D Converter.**

To obtain constant high voltage, this circuit supplies controlled DC voltage to the FBT and the horizontal deflection circuit according to the horizontal sync frequency.